



## SEQUENCE LISTING

#15  
RECEIVED

NOV 08 2002

TECH CENTER 1600/2900

<110> Lou, Ying  
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Leo, Cindy  
Huang, Betty  
Shen, Mary

<120> NOVEL IAPS ASSOCIATED CELL CYCLE PROTEINS, COMPOSITIONS  
AND METHODS OF USE

<130> A-68289-1/RMS/DHR

<140> 09/715,725

<141> 2000-11-16

<150> 09/422,013

<151> 1999-11-17

<160> 20

<170> PatentIn Ver. 2.1

<210> 1

<211> 1108

<212> DNA

<213> Homo sapiens

<400> 1

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<211> 214

<212> PRT

<213> Homo sapiens

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cccgtggacc caaacgaacc cacgtactgc ctgtgccacc aggtctccta tggggagatg 720  
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Leu Asp Gln Arg Thr Glu Asp Lys Lys Ala Glu Ile Asp Ile Leu Ala  
35 40 45  
Ala Glu Tyr Ile Ser Thr Val Lys Thr Leu Ser Pro Asp Gln Arg Val  
50 55 60  
Glu Arg Leu Gln Lys Ile Gln Asn Ala Tyr Ser Lys Cys Lys Glu Tyr  
65 70 75 80  
Ser Asp Asp Lys Val Gln Leu Ala Met Gln Thr Tyr Glu Met Val Asp  
85 90 95  
Lys His Ile Arg Arg Leu Asp Ala Asp Leu Ala Arg Phe Glu Ala Asp  
100 105 110  
Leu Lys Asp Lys Met Glu Gly Ser Asp Phe Glu Ser Ser Gly Gly Arg  
115 120 125  
Gly Leu Lys Lys Gly Arg Gly Gln Lys Glu Lys Arg Gly Ser Arg Gly  
130 135 140  
Arg Gly Arg Arg Thr Ser Glu Glu Asp Thr Pro Lys Lys Lys Lys His  
145 150 155 160  
Lys Gly Gly Ser Glu Phe Thr Asp Thr Ile Leu Ser Val His Pro Ser  
165 170 175  
Asp Val Leu Asp Met Pro Val Asp Pro Asn Glu Pro Thr Tyr Cys Leu  
180 185 190  
Cys His Gln Val Ser Tyr Gly Glu Met Ile Gly Cys Asp Asn Pro Asp  
195 200 205  
Cys Pro Ile Glu Trp Phe His Phe Ala Cys Val Asp Leu Thr Thr Lys  
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Pro Lys Gly Lys Trp Glx  
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 Leu Asp Gln Arg Thr Glu Asp Lys Lys Ala Glu Ile Asp Ile Leu Ala  
 35 40 45  
 Ala Glu Tyr Ile Ser Thr Val Lys Thr Leu Ser Pro Asp Gln Arg Val  
 50 55 60  
 Glu Arg Leu Gln Lys Ile Gln Asn Ala Tyr Ser Lys Cys Lys Glu Tyr  
 65 70 75 80  
 Ser Asp Asp Lys Val Gln Leu Ala Met Gln Thr Tyr Glu Met Val Asp  
 85 90 95  
 Lys His Ile Arg Arg Leu Asp Ala Asp Leu Ala Arg Phe Glu Ala Asp  
 100 105 110  
 Leu Lys Asp Lys Met Glu Gly Ser Asp Phe Glu Ser Ser Gly Gly Arg  
 115 120 125  
 Gly Leu Lys Lys Gly Arg Gly Gln Lys Glu Lys Arg Gly Ser Arg Gly  
 130 135 140

Arg Gly Arg Arg Thr Ser Glu Glu Asp Thr Pro Lys Lys Lys Lys His  
 145 150 155 160  
 Lys Gly Gly Ser Glu Phe Thr Asp Thr Ile Leu Ser Val His Pro Ser  
 165 170 175  
 Asp Val Leu Asp Met Pro Val Asp Pro Asn Glu Pro Thr Tyr Cys Leu  
 180 185 190  
 Cys His Gln Val Ser Tyr Gly Glu Met Ile Gly Cys Asp Asn Pro Asp  
 195 200 205  
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 Pro Lys Gly Lys Trp Glx  
 225 230

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 <212> DNA  
 <213> Homo sapiens

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 accagcgcgt ggagcgcctg cagaagatcc agaacgccta cagcaagtgc aaggaatata 360  
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 Leu Asp Gln Arg Thr Glu Asp Lys Lys Ala Glu Ile Asp Ile Leu Ala  
 35 40 45

Ala Glu Tyr Ile Ser Thr Val Lys Thr Leu Ser Pro Asp Gln Arg Val  
 50 55 60  
 Glu Arg Gln Gln Lys Ile Gln Asn Ala Tyr Ser Lys Cys Lys Glu Tyr  
 65 70 75 80  
 Ser Asp Asp Lys Val Gln Leu Ala Met Gln Thr Tyr Glu Met Val Asp  
 85 90 95  
 Lys His Ile Arg Arg Leu Asp Ala Asp Leu Ala Arg Phe Glu Ala Asp  
 100 105 110  
 Leu Lys Asp Lys Met Glu Gly Ser Asp Phe Glu Ser Ser Gly Gly Arg  
 115 120 125  
 Gly Leu Lys Lys Gly Arg Gly Gln Lys Glu Lys Arg Gly Ser Arg Gly  
 130 135 140  
 Arg Gly Arg Arg Thr Ser Glu Glu Asp Thr Pro Lys Lys Lys Lys His  
 145 150 155 160  
 Lys Gly Gly Ser Glu Phe Thr Asp Thr Ile Leu Ser Val His Pro Ser  
 165 170 175  
 Asp Val Leu Asp Met Pro Val Asp Pro Asn Glu Pro Thr Tyr Cys Leu  
 180 185 190  
 Cys His Gln Val Ser Tyr Gly Glu Met Ile Gly Cys Asp Asn Pro Asp  
 195 200 205  
 Cys Pro Ile Glu Trp Phe His Phe Ala Cys Val Asp Leu Thr Thr Lys  
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<213> Homo sapiens

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Gln Arg Val Glu Arg Leu Gln Lys Ile Gln Asn Ala Tyr Ser Lys Cys
          35             40             45

Lys Glu Tyr Ser Asp Asp Lys Val Gln Leu Ala Met Gln Thr Tyr Glu
          50             55             60

Met Val Asp Lys His Ile Arg Arg Leu Asp Ala Asp Leu Ala Arg Phe
          65             70             75             80

Glu Ala Asp Leu Lys Asp Lys Met Glu Gly Ser Asp Phe Glu Ser Ser
          85             90             95

Gly Gly Arg Gly Leu Lys Lys Gly Arg Gly Gln Lys Glu Lys Arg Gly
          100            105            110

Ser Arg Gly Arg Gly Arg Arg Thr Ser Glu Glu Asp Thr Pro Lys Lys
          115            120            125

Lys Lys His Lys Gly Gly Ser Glu Phe Thr Asp Thr Ile Leu Ser Val
          130            135            140

His Pro Ser Asp Val Leu Asp Met Pro Val Asp Pro Asn Glu Pro Thr
          145            150            155            160

Tyr Cys Leu Cys His Gln Val Ser Tyr Gly Glu Met Ile Gly Cys Asp
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Asn Pro Asp Cys Pro Ile Glu Trp Phe His Phe Ala Cys Val Asp Leu
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Thr Thr Lys Pro Lys Gly Lys Glx
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<211> 279
<212> PRT

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<213> Homo sapiens

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			20					25						30		
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		35					40					45				
Lys	Glu	Leu	Asp	Glu	Cys	Tyr	Glu	Arg	Phe	Ser	Arg	Glu	Thr	Asp	Gly	
	50					55					60					
Ala	Gln	Lys	Arg	Arg	Met	Leu	His	Cys	Val	Gln	Arg	Ala	Leu	Ile	Arg	
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Ser	Gln	Glu	Leu	Gly	Asp	Glu	Lys	Ile	Gln	Ile	Val	Ser	Gln	Met	Val	
				85					90					95		
Glu	Leu	Val	Glu	Asn	Arg	Thr	Arg	Gln	Val	Asp	Ser	His	Val	Glu	Leu	
			100					105					110			
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Pro	Asn	Ser	Lys	Arg	Ser	Arg	Arg	Gln	Arg	Asn	Asn	Glu	Asn	Arg	Glu	
145					150					155					160	
Asn	Ala	Ser	Ser	Asn	His	Asp	His	Asp	Asp	Gly	Ala	Ser	Gly	Thr	Pro	
				165					170					175		
Lys	Glu	Lys	Lys	Ala	Lys	Thr	Ser	Lys	Lys	Lys	Lys	Arg	Ser	Lys	Ala	
			180					185						190		
Lys	Ala	Glu	Arg	Glu	Ala	Ser	Pro	Ala	Asp	Leu	Pro	Ile	Asp	Pro	Asn	
		195					200					205				
Glu	Pro	Thr	Tyr	Cys	Leu	Cys	Asn	Gln	Val	Ser	Tyr	Gly	Glu	Met	Ile	
	210					215					220					
Gly	Cys	Asp	Asn	Asp	Glu	Cys	Pro	Ile	Glu	Trp	Phe	His	Phe	Ser	Cys	
225					230				235						240	
Val	Gly	Leu	Asn	His	Lys	Pro	Lys	Gly	Lys	Trp	Tyr	Cys	Pro	Lys	Cys	
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Arg	Gly	Glu	Asn	Glu	Lys	Thr	Met	Asp	Lys	Ala	Leu	Glu	Lys	Ser	Lys	
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Lys	Glu	Arg	Ala	Tyr	Asn	Arg										
		275														



<213> Homo sapiens

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Gly Glu Asn Glu Lys Thr Met Asp Lys Ala Leu Glu Lys Ser Lys Lys  
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Glu Arg Ala Tyr Asn Arg  
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<210> 13  
 <211> 280  
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<400> 13  
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Glu Cys Val Glu Ser Leu Pro His Asp Met Gln Arg Asn Val Ser Val  
 35 40 45

Leu Arg Glu Leu Asp Asn Lys Tyr Gln Glu Thr Leu Lys Glu Ile Asp  
 50 55 60

Asp Val Tyr Glu Lys Tyr Lys Lys Glu Asp Asp Leu Asn Gln Lys Lys  
 65 70 75 80

Arg Leu Gln Gln Leu Leu Gln Arg Ala Leu Ile Asn Ser Gln Glu Leu  
 85 90 95

Gly Asp Glu Lys Ile Gln Ile Val Thr Gln Met Leu Glu Leu Val Glu  
 100 105 110

Asn Arg Ala Arg Gln Met Glu Leu His Ser Gln Cys Phe Gln Asp Pro  
 115 120 125

Ala Glu Ser Glu Arg Ala Ser Asp Lys Ala Lys Met Asp Ser Ser Gln  
 130 135 140

Pro Glu Arg Ser Ser Arg Arg Pro Arg Arg Gln Arg Thr Ser Glu Ser  
 145 150 155 160

Arg Asp Leu Cys His Met Ala Asn Gly Ile Glu Asp Cys Asp Asp Gln  
 165 170 175

Pro Pro Lys Glu Lys Lys Ser Lys Ser Ala Lys Lys Lys Lys Arg Ser  
 180 185 190

Lys Ala Lys Gln Glu Arg Glu Ala Ser Pro Val Glu Phe Ala Ile Asp  
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<212> PRT  
<213> Mus musculus

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20 25

<210> 20  
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<212> PRT  
<213> Mus musculus

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